

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-18, 20, 21, 23-26, 28-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang et al. (United States Patent Application Publication 2003/0093804), herein after referenced as Chang.

Regarding **claim 1**, Chang discloses a seamless integration of multiple data/internet connections. In addition, Chang discloses that FIG. 3 is an illustration of exemplary system connections for a digital set-top box according to the present invention. Example input/output interfaces for connecting to the STB (Set-top Box) are shown in FIG. 2. (Elements 150-166) As shown in FIG. 3, STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source to the STB. Chang further discloses that the STB 22 can interface with a number of end-user devices including a personal computer 214. Chang inherently discloses a "storage device" as evidenced by the fact that one of ordinary skill

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in the art would have recognized that a storage device would have been included in a personal computer (e.g. hard disc drive, floppy disc drive, optical disc drive, etc...) so that the computer system could hold and retain data even when the computer is off, which therefore reads on claimed “a storage device; a controller connected to the storage device through a first network connection”, as disclosed in paragraphs [0033], [0034], and further exhibited in figures 1, 2, and 3.

Regarding a television output, Chang discloses that STB 22 also may incorporate basic video outputs 166 that can be used for direct connection to a television set such as 24 instead of (or in addition to) an IEEE 1394 connection such as that illustrated as 30. In one embodiment, video output 166 can provide composite video formatted as NTSC (National Television System Committee) video. In some embodiments, the video output 166 can be provided by a direct connection to the graphics processor 136 or the demultiplexer/descrambler 110 rather than passing through the system bus 130 as illustrated in the exemplary block diagram, which reads on claimed “a television output”, as disclosed in paragraph [0027] and further exhibited in figure 1 and 2.

Regarding a remote control receiver, Chang discloses that the infrared port 160 can be embodied as an infrared receiver 34 as illustrated in FIG. 1, to receive commands from an infrared remote control 36, which reads on claimed “a remote control receiver”, as disclosed in paragraph [0028] and further exhibited in figures 1 and 2.

Regarding a processor configured to receive instructions through the remote control receiver, Chang discloses that in FIG. 2, these input/output interfaces may

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include RS-232 150, Ethernet 152, USB 154, IEEE 1394 156, S-video 158, Infrared 160, Modem 162, Keyboard 164, and video/TV 166 connections among others. The multi-tasking and decision making operations can be performed by CPU 132. The data transfer and switching operations can be performed by use of switched connections within I/O Interface 146, system bus 130, memory 176, and are controlled by CPU 132, which reads on claimed "processor configured to receive instructions through the remote control receiver", as disclosed in paragraph [0037] and further exhibited in figure 2.

Regarding a processor to retrieve content from the storage device, Chang discloses that STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source to the STB. Examples of download-only communication are satellite 202 and broadcast television 204. Bi-directional communication indicates that data can be transferred both to and from the STB and an external source. Examples of bi-directional communication are modems 206, bi-directional cable connections 208, ISDN, DSL 210, and the Internet. In some situations data can be requested by the STB from a download-only communication by directing the request to the external source through a bi-directional connection. Furthermore, the CPU of the set-top box 22 would be responsible for the bi-directional communications with the external devices such as a personal computer

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214, which reads on claimed “a processor to retrieve content from the storage device”, as disclosed in paragraph [0034] and further exhibited in figure 2 and 3.

Regarding to provide corresponding signals to the television output, Chang discloses that a central processing unit (CPU) 132 can thus access the decoded data from data decoder 126 via the system bus 130. Video data decoded by video decoder 122 is passed to a graphics processor 136, which is a computer optimized to processes graphics information rapidly. In addition, the video data can be sent through the system bus 130 to the I/O interface 146 to the Video/TV output 166, which therefore reads on claimed “provide corresponding signals to the television output”, as disclosed in paragraph [0021] and further exhibited in figure 2.

Regarding an interface to a second network, Chang discloses that the media server 12 and EPG server 16 are coupled by transmission medium 20 to a set top box (STB) 22. The transmission medium 20 may include, for example, a conventional coaxial cable network, a fiber optic cable network, telephone system, twisted pair, a satellite communication system, a radio frequency (RF) system, a microwave system, other wireless systems, a combination of wired and wireless systems or any of a variety of known electronic transmission mediums. In the case of a cable television network, transmission medium 20 is commonly realized at the subscriber's premises as a coaxial cable that is connected to a suitable cable connector at the rear panel of the STB 22, which reads on claimed “an interface to a second network”, as disclosed in paragraph [0014] and further exhibited in figures 1 and 2.

Regarding **claim 2**, Chang discloses everything as claimed above (see claim 1). In addition, Chang discloses that the system 100 includes, at a head end of the service provider 10, a media server 12 for providing, on demand, movies and other programming obtained from a media database 14, which reads on claimed "the remote server storing content organized as one or more media files", as disclosed in paragraph [0013] and further exhibited in figure 1.

Regarding a remote server accessible through the interface to the second network, the system configured to retrieve content from the remote server and store the content on the storage device, Chang discloses that the media server 12 and EPG server 16 are coupled by transmission medium 20 to a set top box (STB) 22. In addition, Chang further discloses that in FIG. 3, STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source to the STB. Examples of download-only communication are satellite 202 and broadcast television 204. Bi-directional communication indicates that data can be transferred both to and from the STB and an external source, which reads on claimed "a remote server accessible through the interface to the second network, the system configured to retrieve content from the remote server and store the content on the storage device", as disclosed in paragraphs [0014], [0033], and further exhibited in figures 1, 2, and 3.

Regarding **claim 3**, Chang discloses everything as claimed above (see claim 2). In addition, Chang discloses that FIG. 3 is an illustration of exemplary system

connections for a digital set-top box according to the present invention. Example input/output interfaces for connecting to the STB are shown in FIG. 2. (Elements 150-166) As shown in FIG. 3, STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source to the STB. Chang further discloses that the STB 22 can interface with a number of end-user devices including a personal computer 214. Chang inherently discloses a "storage device" as evidenced by the fact that one of ordinary skill in the art would have recognized that a storage device would have been included in a personal computer (e.g. hard disc drive, floppy disc drive, optical disc drive, etc...) so that the computer system could hold and retain data even when the computer is off, which therefore reads on claimed "wherein the interface to the second network connects the second network to a computer including a storage device", as disclosed in paragraphs [0033], [0034], and further exhibited in figures 1, 2, and 3.

Regarding **claim 4**, Chang discloses everything as claimed above (see claim 2). In addition, Chang discloses that in FIG. 3, STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source to the STB. Examples of download-only communication are satellite 202 and broadcast television 204. Bi-directional communication indicates that data can be transferred both

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to and from the STB and an external source. Chang further discloses that the data transfer and switching operations can be performed by use of switched connections within I/O Interface 146, system bus 130, memory 176, and are controlled by CPU 132, which reads on claimed “wherein the interface to the second network connects the second network to the controller, the controller storing the retrieved content on the storage device” as disclosed in paragraphs [0033], [0037], and further exhibited in figures 2 and 3.

Regarding **claim 5**, Chang discloses everything as claimed above (see claim 2). In addition, Chang discloses that a third member requests a video download from an internet website. The request is received by the connected STB, which determines the most efficient means for satisfying the request, which reads on claimed “wherein the remote server includes a website that provides the content”, as disclosed in paragraph [0041].

Regarding **claim 6**, Chang discloses everything as claimed above (see claim 5). In addition, Chang discloses that the STB 22 will more commonly, as time goes on, include a disc drive interface 170 and disc drive mass storage 172 for user storage of content and data as well as providing storage of programs operating on CPU 132. STB 22 may also, include floppy disc drives, CD ROM drives, CD R/W drives, DVD drives, etc CPU 132, in order to operate as a computer, which reads on claimed “wherein the controller emulates a computer running software to interact with the website”, as disclosed in paragraphs [0029] and [0041].

Regarding **claim 7**, Chang discloses everything as claimed (see claim 5). In addition, Chang discloses that the STB 22 will more commonly, as time goes on, include a disc drive interface 170 and disc drive mass storage 172 for user storage of content and data as well as providing storage of programs operating on CPU 132. STB 22 may also, include floppy disc drives, CD ROM drives, CD R/W drives, DVD drives, etc CPU 132, in order to operate as a computer, which reads on claimed “wherein the controller emulates a computer that includes the storage device”, as disclosed in paragraph [0029].

Regarding **claim 8**, Chang discloses everything as claimed (see claim 2). In addition, Chang discloses that the system 100 includes, at a head end of the service provider 10, a media server 12 for providing, on demand, movies and other programming obtained from a media database 14, which reads on claimed “wherein the content on the remote server includes one or more movies” as disclosed in paragraph [0013] and further exhibited in figure 1.

Regarding **claim 9**, Chang discloses everything as claimed above (see claim 2). In addition, Chang discloses that the system 100 includes, at a head end of the service provider 10, a media server 12 for providing, on demand, movies and other programming obtained from a media database 14. The media server 12 might also provide additional content such as interviews with the actors, games, advertisements, available merchandise, associated Web pages, interactive games and other related content., which reads on claimed "wherein the content on the remote server includes at

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least one of news, music, television shows, games, music videos, or sports events”, as disclosed in paragraph [0013].

Regarding **claim 10**, Chang discloses everything as claimed above (see claim 1). In addition, Chang discloses that the components of the STB 22 may be incorporated into the TV 24 itself, thus eliminating the STB 22, which reads on claimed “wherein the controller is integrated into a television” as disclosed in paragraph [0015].

Regarding **claim 11**, Chang discloses everything as claimed above (see claim 1). In addition, Chang discloses that the STB 22 may include a central processing unit (CPU) and memory such as Random Access Memory (RAM), Read Only Memory (ROM), flash memory, mass storage such as a hard disc drive, floppy disc drive, optical disc drive or may accommodate other electronic storage media, etc Such memory and storage media is suitable for storing data as well as instructions for programmed processes for execution on the CPU, which reads on claimed “wherein the controller is integrated into a set-top box”, as disclosed in paragraph [0015] and further exhibited in figure 2.

Regarding **claim 12**, Chang discloses everything as claimed above (see claim 11). In addition, Chang discloses that in the case of a Direct Satellite System (DSS), the STB 22 is often referred to as an Integrated Receiver Decoder (IRD). In the case of a DSS system, the transmission medium is a satellite transmission at an appropriate microwave band. Such transmissions are typically received by a satellite dish antenna with an integral Low Noise Block (LNB) that serves as a down-converter to convert the signal to a lower frequency for processing by the STB. Furthermore Chang discloses

that STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source to the STB. Examples of download-only communication are satellite 202 and broadcast television 204, which therefore reads on claimed "wherein the set-top box includes a satellite receiver", as disclosed in paragraphs [0014], [0033], and further exhibited in figure 3.

Regarding **claim 13**, Chang discloses everything as claimed above (see claim 11). In addition, Chang discloses that referring to FIG. 1, a block diagram for an exemplary interactive cable or satellite television (TV) system 100 is shown. The system 100 includes, at a head end of the service provider 10, a media server 12 for providing, on demand, movies and other programming obtained from a media database 14. The media server 12 might also provide additional content such as interviews with the actors, games, advertisements, available merchandise, associated Web pages, interactive games and other related content. The system 100 also includes an electronic programming guide (EPG) server 16 and a program listing database 18 for generating an EPG. Set-top box 22 can generally provide for bi-directional communication over a transmission medium 20 in the case of a cable STB 22, which reads on claimed "wherein the set-top box includes a cable receiver", as disclosed in paragraph [0013] and further exhibited in figures 1 and 3.

Regarding **claim 14**, Chang discloses everything as claimed above (see claim 1). In addition, Chang discloses that recent development of set-top boxes (STBs) is seen

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by many as a first step in the attempt to combine some of these devices. Set-top boxes essentially combine many of the features that are commonly found in separate end-user devices--e.g. cable boxes, VCRs, game consoles, and computers--into a single device connected to the television. Hence, the multiple boxes, connections, user interfaces, and remote controls for these separate devices are effectively consolidated, which reads on claimed "wherein the controller is integrated into at least one of a video cassette recorder, a digital versatile disc player, a digital video recorder, a wireless access point, a digital subscriber line transceiver, or a router", as disclosed in paragraph [0003].

Regarding **claim 15**, Chang discloses everything as claimed above (see claim1). In addition, Chang discloses that discloses that browser software 182 suitable for viewing Internet web pages, electronic programming guides, Video-on Demand, and pay per view, which allows the user to request media from the head-end and store it locally. Furthermore Chang discloses that it can be readily appreciated that the input device 36 may be any device suitable for controlling the STB 22 such as a remote control, personal digital assistant, laptop computer, keyboard or computer mouse. In addition, an input device in the form of a control panel located on the TV 24 or the STB 22 can be provided, which therefore reads on claimed "wherein the controller generates a user interface within the signals to the television output, a user providing selections within the user interface rendered on a television set connected to the television output using a remote control connected in a communicating relationship with the remote

control receiver of the controller”, as disclosed in paragraphs [0031 and [0017] respectively.

Regarding **claim 16**, Chang discloses everything as claimed above (see claim 1). In addition, Chang discloses that the STB 22 can interface with a number of end-user devices including a personal computer 214. Chang inherently discloses a "storage device" as evidenced by the fact that one of ordinary skill in the art would have recognized that a storage device would have been included in a personal computer (e.g. hard disc drive, floppy disc drive, optical disc drive, etc...) so that the computer system could hold and retain data even when the computer is off, which therefore reads on claimed “a computer including the storage device”, as disclosed in paragraphs [0033]. [0034], and further exhibited in figures 1, 2 and 3.

Regarding a remote server connected to the second network, Chang discloses that the system 100 includes, at a head end of the service provider 10, a media server 12 for providing, on demand, movies and other programming obtained from a media database 14, which reads on claimed “a remote server connected to the second network”, as disclosed in paragraph [0013] and further exhibited in figure 1.

Regarding a television connected to the television output, Chang discloses that the STB 22 also may incorporate basic video outputs 166 that can be used for direct connection to a television set such as 24 instead of (or in addition to) an IEEE 1394 connection such as that illustrated as 30, which reads on claimed “a television connected to the television output”, as disclosed in paragraph [0027] and further exhibited in figures 1, 2, and 3.

Regarding wherein the controller provides commands to the computer to download content from the remote server in response to input received from a user through a user interface rendered on the televisions, Chang discloses that STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source to the STB. Examples of download-only communication are satellite 202 and broadcast television 204. Bi-directional communication indicates that data can be transferred both to and from the STB and an external source. Examples of bi-directional communication are modems 206, bi-directional cable connections 208, ISDN, DSL 210, and the Internet. In some situations data can be requested by the STB from a download-only communication by directing the request to the external source through a bi-directional connection. Furthermore, Chang discloses browser software 182 suitable for viewing Internet web pages, electronic programming guides, Video-on Demand, and pay per view, which allows the user to request media from the head-end and store it locally, which therefore reads on claimed "the controller provides commands to the computer to download content from the remote server in response to input received from a user through a user interface rendered on the televisions", as disclosed in paragraphs [0031], [0032], [0033], and further exhibited in figures 1 and 3.

Regarding **claim 17**, Chang discloses everything as claimed above (see claim 16). In addition, Chang discloses that the media server 12 and EPG server 16 are

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coupled by transmission medium 20 to a set top box (STB) 22. The transmission medium 20 may include, for example, a conventional coaxial cable network, a fiber optic cable network, telephone system, twisted pair, a satellite communication system, a radio frequency (RF) system, a microwave system, other wireless systems, a combination of wired and wireless systems or any of a variety of known electronic transmission mediums, which reads on claimed "wherein the interface to the second network is coupled to the controller", as disclosed in paragraph [0014] and further exhibited in figures 1 and 3.

Regarding the controller receiving content from the remote server and transmitting the content to the storage device, Chang discloses that the STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source to the STB. Examples of download-only communication are satellite 202 and broadcast television 204. Bi-directional communication indicates that data can be transferred both to and from the STB and an external source. Examples of bi-directional communication are modems 206, bi-directional cable connections 208, ISDN, DSL 210, and the Internet. In some situations data can be requested by the STB from a download-only communication by directing the request to the external source through a bi-directional connection, which reads on claimed "the controller receiving content from the remote server and transmitting the

content to the storage device”, as disclosed in paragraph [0033] and further exhibited in figures 1 and 3.

Regarding **claim 18**, Chang discloses everything as claimed above (see claim 1). In addition, Chang discloses that the STB 22 can interface with a number of end-user devices including a personal computer 214. Chang inherently discloses a "storage device" as evidenced by the fact that one of ordinary skill in the art would have recognized that a storage device would have been included in a personal computer (e.g. hard disc drive, floppy disc drive, optical disc drive, etc...) so that the computer system could hold and retain data even when the computer is off, which therefore reads on claimed “a computer including the storage device”, as disclosed paragraph [0034] and further exhibited in figure 3.

Regarding a remote server connected to the second network, Chang discloses that the media server 12 and EPG server 16 are coupled by transmission medium 20 to a set top box (STB) 22. The transmission medium 20 may include, for example, a conventional coaxial cable network, a fiber optic cable network, telephone system, twisted pair, a satellite communication system, a radio frequency (RF) system, a microwave system, other wireless systems, a combination of wired and wireless systems or any of a variety of known electronic transmission mediums. In the case of a cable television network, transmission medium 20 is commonly realized at the subscriber's premises as a coaxial cable that is connected to a suitable cable connector at the rear panel of the STB 22, which reads on claimed “ a remote server connected to

the second network”, as disclosed in paragraph [0014] and further exhibited in figures 1 and 3.

Regarding a television connected to the television output, Chang discloses that the STB 22 also may incorporate basic video outputs 166 that can be used for direct connection to a television set such as 24 instead of (or in addition to) an IEEE 1394 connection such as that illustrated as 30, which reads on claimed “a television connected to the television output”, as disclosed in paragraph [0027] and further exhibited in figures 1, 2, and 3.

Regarding wherein the controller provides content from the computer to the television in response to input received from a user through a user interface rendered on the television, Chang discloses that STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source to the STB. Examples of download-only communication are satellite 202 and broadcast television 204. Bi-directional communication indicates that data can be transferred both to and from the STB and an external source. Furthermore, Chang discloses that the browser software 182 is suitable for viewing Internet web pages, electronic programming guides, Video-on Demand, and pay per view, which allows the user to request media from the head-end and store it locally, which therefore reads on claimed “wherein the controller provides content from the computer to the television in response

to input received from a user through a user interface rendered on the television”, as disclosed in paragraphs [0031], [0032], and [0033].

Regarding **claim 20**, Chang discloses everything as claimed above (see claim 1). In addition, Chang discloses that the STB 22 includes an infrared (IR) receiver 34 for receiving IR signals from an input device such as remote control 36, which reads on claimed “wherein the remote control receiver includes an infrared interface”, as disclosed in paragraph [0017] and further exhibited in figures 1 and 2.

Regarding **claim 21**, Chang discloses everything as claimed above (see claim 1). In addition, Chang discloses that the STB 22 includes an infrared (IR) receiver 34 for receiving IR signals from an input device such as remote control 36. Alternatively, it is noted that many other control communication methods may be utilized besides IR, such as wired or wireless radio frequency, etc In addition, it can be readily appreciated that the input device 36 may be any device suitable for controlling the STB 22 such as a remote control, personal digital assistant, laptop computer, keyboard or computer mouse. In addition, an input device in the form of a control panel located on the TV 24 or the STB 22 can be provided, which reads on claimed “wherein the remote control receiver includes a radio frequency interface”, as disclosed in paragraph [0017] and further exhibited in figures 1 and 2.

Regarding **claim 23**, Chang discloses everything as claimed above (see claim 1). In addition, Chang discloses that the media server 12 and EPG server 16 are coupled by transmission medium 20 to a set top box (STB) 22. The transmission medium 20 may include, for example, a conventional coaxial cable network, a fiber optic cable

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network, telephone system, twisted pair, a satellite communication system, a radio frequency (RF) system, a microwave system, other wireless systems, a combination of wired and wireless systems or any of a variety of known electronic transmission mediums. In the case of a cable television network, transmission medium 20 is commonly realized at the subscriber's premises as a coaxial cable that is connected to a suitable cable connector at the rear panel of the STB 22, which reads on claimed "wherein the interface to the second network includes a broadband connection", as disclosed in paragraph [0014] and further exhibited in figures 1, 2, and 3.

Regarding **claim 24**, Chang discloses that the STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source to the STB. Examples of download-only communication are satellite 202 and broadcast television 204. Bi-directional communication indicates that data can be transferred both to and from the STB and an external source. Examples of bi-directional communication are modems 206, bi-directional cable connections 208, ISDN, DSL 210, and the Internet. In some situations data can be requested by the STB from a download-only communication by directing the request to the external source through a bi-directional connection. Furthermore, Chang discloses browser software 182 suitable for viewing Internet web pages, electronic programming guides, Video-on Demand, and pay per view, which allows the user to request media from the head-end and store it locally, which therefore reads on claimed "computer executable code for

operating a controller to retrieve content from a remote server and store the content on a storage device connected to the controller through a local network”, as disclosed in paragraphs [0031], [0032], [0033], and further exhibited in figures 1 and 3.

Regarding computer executable code for retrieving the content from the storage device and displaying the content on a television connected to the controller, STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source to the STB. Examples of download-only communication are satellite 202 and broadcast television 204. Bi-directional communication indicates that data can be transferred both to and from the STB and an external source. Examples of bi-directional communication are modems 206, bi-directional cable connections 208, ISDN, DSL 210, and the Internet. In some situations data can be requested by the STB from a download-only communication by directing the request to the external source through a bi-directional connection, which reads on claimed “computer executable code for retrieving the content from the storage device and displaying the content on a television connected to the controller”, as disclosed in paragraph [0033] and further exhibited in figure 3.

Regarding computer executable code for generating a user interface on the television to control the retrieval and display of the content, Chang discloses that browser software 182 suitable for viewing Internet web pages, electronic programming guides, Video-on Demand, and pay per view, which allows the user to request media

from the head-end and store it locally, which reads on claimed “computer executable code for generating a user interface on the television to control the retrieval and display of the content”, as disclosed in paragraph [0031].

Regarding **claim 25**, Chang discloses everything as claimed above (see claim 24). In addition, Chang discloses STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source to the STB. Examples of download-only communication are satellite 202 and broadcast television 204. Bi-directional communication indicates that data can be transferred both to and from the STB and an external source. Examples of bi-directional communication are modems 206, bi-directional cable connections 208, ISDN, DSL 210, and the Internet. In some situations data can be requested by the STB from a download-only communication by directing the request to the external source through a bi-directional connection, which reads on claimed “computer executable code for retrieving content from the remote server to the controller and transferring the content to the storage device”, as disclosed in paragraph [0033] and further exhibited in figure 1 and 3.

Regarding **claim 26**, Chang discloses everything as claimed above (see claim 24). In addition, Chang discloses that the STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source

to the STB. Examples of download-only communication are satellite 202 and broadcast television 204. Bi-directional communication indicates that data can be transferred both to and from the STB and an external source. Examples of bi-directional communication are modems 206, bi-directional cable connections 208, ISDN, DSL 210, and the Internet. In some situations data can be requested by the STB from a download-only communication by directing the request to the external source through a bi-directional connection. Furthermore, Chang discloses browser software 182 suitable for viewing Internet web pages, electronic programming guides, Video-on Demand, and pay per view, which allows the user to request media from the head-end and store it locally, which therefore reads on claimed “computer executable code for operating a computer connected through the local network to the controller and including the storage device such that the computer downloads the content from the remote server and stores the content on the storage device”, as disclosed in paragraphs [0031], [0032], [0033], and further exhibited in figures 1 and 3.

Regarding **claim 28**, Chang discloses that the STB 22 can interface with a number of end-user devices. Again, these connections can be download-only or bi-directional depending upon the device. Example end-user devices are personal computers 214, televisions 216, telephones 218, stereos 220, remote controls, monitors, communication devices, smart household appliances, etc Multiple devices can simultaneously request information through the STB, which reads on claimed “a plurality of devices connected in a communicating relationship through a first network”, as disclosed in paragraph [0034] and further exhibited in figures 1 and 3.

Regarding a first one of the devices including a storage unit and a second of the devices including a connection to a second network, Chang discloses that interfaces can be utilized to interconnect the STB 22 with any of a variety of accessory devices such as storage devices, audio/visual devices 26, gaming devices (not shown), Internet Appliances 28, which therefore reads on claimed “a first one of the devices including a storage unit and a second of the devices including a connection to a second network”, as disclosed in paragraph [0024] and further exhibited in figures 1 and 3.

Regarding the second one of the devices including an emulator that presents the plurality of devices to the second network as a single device including at least the storage unit of the first device, Chang discloses that the STB 22 will more commonly, as time goes on, include a disc drive interface 170 and disc drive mass storage 172 for user storage of content and data as well as providing storage of programs operating on CPU 132. STB 22 may also, include floppy disc drives, CD ROM drives, CD R/W drives, DVD drives, etc CPU 132, in order to operate as a computer, which reads on claimed “the second one of the devices including an emulator that presents the plurality of devices to the second network as a single device including at least the storage unit of the first device”, as disclosed in paragraph [0029].

Regarding **claim 29**, Chang discloses everything as claimed above (see claim 28). In addition, Chang discloses that the STB 22 can interface with a number of end-user devices including a personal computer 214, which reads on claimed “wherein the first one of the devices is a personal computer”, as disclosed in paragraph [0024] and further exhibited in figure 3.

Regarding **claim 30**, Chang discloses everything as claimed above (see claim 28). In addition, Chang discloses that the media server 12 and EPG server 16 are coupled by transmission medium 20 to a set top box (STB) 22. The transmission medium 20 may include, for example, a conventional coaxial cable network, a fiber optic cable network, telephone system, twisted pair, a satellite communication system, a radio frequency (RF) system, a microwave system, other wireless systems, a combination of wired and wireless systems or any of a variety of known electronic transmission mediums. In the case of a cable television network, transmission medium 20 is commonly realized at the subscriber's premises as a coaxial cable that is connected to a suitable cable connector at the rear panel of the STB 22, which reads on claimed "wherein the connection to the second network includes a broadband connection", as disclosed in paragraph [0014] and further exhibited in figures 1, 2, and 3.

Regarding **claim 31**, Chang discloses everything as claimed above (see claim 28). In addition, Chang discloses that STB 22 can connect and communicate with external devices using a number of communication media. The connections can be download-only or bi-directional between the STB and the external sources. Download-only communication indicates that data can only be transferred from the external source to the STB. Examples of download-only communication are satellite 202 and broadcast television 204. Bi-directional communication indicates that data can be transferred both to and from the STB and an external source. Examples of bi-directional communication are modems 206, bi-directional cable connections 208, ISDN, DSL 210, and the

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Internet. In some situations data can be requested by the STB from a download-only communication by directing the request to the external source through a bi-directional connection, which reads on claimed "wherein the first network includes a wireless network", as disclosed in paragraph [0033] and further exhibited in figure 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Gatto et al. (United States Patent Application Publication 2002/0174444), herein after referenced as Gatto.

Regarding **claim 19**, Chang discloses everything as claimed above (see claim 1). However, Chang fails to disclose "wherein the television output provides high-definition television signals", however the examiner maintains that it was well known in the art to provide wherein the television output provides high-definition television signals, as taught by Gatto.

In a similar field of endeavor, Gatto discloses a trusted transactional set-top box. In addition, Gatto discloses that the display(s) that may be coupled to the present STB may include (one or more of) a television set, a High Definition Television (HDTV)

and/or a computer monitor, and the graphics interface may be configured to selectively output the decoded video signal to the display(s) in full screen mode, picture-in-picture mode, mosaic mode or multi-window mode, for example. The set top box may also include a magnetic and/or smart card reader, which reads on claimed "wherein the television output provides high-definition television signals", as disclosed in paragraph [0015] and further exhibited in figure 5.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chang by specifically providing wherein the television output provides high-definition television signals, as taught by Gatto, for the purpose of providing the user with better image quality compared to standard definition television.

Regarding **claim 22**, Chang discloses everything as claimed above (see claim 21). However, Chang fails to disclose "wherein the radio frequency interface includes a Bluetooth interface", however the examiner maintains that it was well known in the art to provide a radio frequency interface that includes a Bluetooth interface, as taught by Gatto.

Regarding wherein the radio frequency interface includes a Bluetooth interface, Gatto discloses that the STB 100 may communicate with the User Remote Control 502 via a number of interfaces such as a traditional TV/VCR-type hand held device, a keyboard/mouse or other pointing device or a Personal Remote Control (shared or individual), for example. The interface may implement any of a number of technologies, such as Infra-Red (IR) or BlueTooth, for example, which reads on claimed "wherein the

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radio frequency interface includes a Bluetooth interface", as disclosed in paragraph [0070].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chang by specifically providing wherein the radio frequency interface includes a Bluetooth interface, as taught by Gatto, for the purpose of allowing the remote to communicate over a secure, unlicensed short-range radio frequency.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Soundararajan (United States Patent Application Publication 2003/0106072), herein after referenced as Soundararajan.

Regarding **claim 27**, Chang discloses everything as claim above. In addition, Chang discloses that the STB 22 can interface with a number of end-user devices including a personal computer 214. Chang inherently discloses a "storage device" as evidenced by the fact that one of ordinary skill in the art would have recognized that a storage device would have been included in a personal computer (e.g. hard disc drive, floppy disc drive, optical disc drive, etc...) so that the computer system could hold and retain data even when the computer is off, which therefore reads on claimed "a computer including a storage device that stores content organized as one or more media files", as disclosed in paragraphs [0033], [0034], and further exhibited in figures 1, 2, and 3.

Regarding a controller comprising a television output, Chang discloses that STB 22 also may incorporate basic video outputs 166 that can be used for direct connection to a television set such as 24 instead of (or in addition to) an IEEE 1394 connection such as that illustrated as 30. In one embodiment, video output 166 can provide composite video formatted as NTSC (National Television System Committee) video. In some embodiments, the video output 166 can be provided by a direct connection to the graphics processor 136 or the demultiplexer/descrambler 110 rather than passing through the system bus 130 as illustrated in the exemplary block diagram, which reads on claimed “a controller comprising a television output”, as disclosed in paragraph [0027] and further exhibited in figures 1 and 2.

Regarding a control interface, a wireless interface, the control interface adapted to receive control signals for operation of the controller, Chang discloses that the STB 22 includes an infrared (IR) receiver 34 for receiving IR signals from an input device such as remote control 36. Alternatively, it is noted that many other control communication methods may be utilized besides IR, such as wired or wireless radio frequency, etc In addition, it can be readily appreciated that the input device 36 may be any device suitable for controlling the STB 22 such as a remote control, personal digital assistant, laptop computer, keyboard or computer mouse. In addition, an input device in the form of a control panel located on the TV 24 or the STB 22 can be provided, which reads on claimed “a control interface, a wireless interface, the control interface adapted to receive control signals for operation of the controller”, as disclosed in paragraph [0017], and further exhibited in figures 1 and 2. However, Chang fails to

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disclose "a wireless interface connected in a communication relationship with the computer, the controller configured to retrieve the stored media from the computer through the wireless interface and provide signals to the television output suitable for interpretation and display on a television set", however the examiner maintains that it was well known in the art to provide a wireless interface connected in a communication relationship with the computer, the controller configured to retrieve the stored media from the computer through the wireless interface and provide signals to the television output suitable for interpretation and display on a television set, as taught by Soundararajan.

In a similar field of endeavor, Soundararajan discloses a multimedia storage and control system. In addition, Soundararajan discloses that the wireless network transceivers 202, 204 in the STB/DTV 104 and PC 106, respectively, preferably communicate with one another using a standard wireless networking protocol, which reads on claimed "a wireless interface connected in a communication relationship with the computer", as disclosed in paragraph [0025] and further exhibited in figures 1 and 2.

Regarding a controller configured to retrieve the stored media from the computer through the wireless interface and provide signals to the television output suitable for interpretation and display on a television set, Soundararajan discloses a system for storing multimedia information received from a real-time broadcast multimedia stream for retrieval and/or processing at a predetermined time includes a PC and a multimedia interface, which may be, for example, a set-top box (STB) or digital television (DTV) unit. The PC receives the multimedia information from the multimedia interface via a

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communication channel, preferably a wireless link, established between the PC and the multimedia interface. The received multimedia information is stored in memory residing in and/or connected to the PC for later retrieval and/or processing, which reads on claimed "a controller configured to retrieve the stored media from the computer through the wireless interface and provide signals to the television output suitable for interpretation and display on a television set", as disclosed in paragraph [0008] and further exhibited in figures 1 and 2.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chang by specifically providing a wireless interface connected in a communication relationship with the computer, the controller configured to retrieve the stored media from the computer through the wireless interface and provide signals to the television output suitable for interpretation and display on a television set, as taught by Soundararajan, for the purpose of allowing the consumer to utilize already existing hardware and thus provide them with a cost saving capability.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER Q. HUERTA whose telephone number is (571)270-3582. The examiner can normally be reached on M-F(Alternate Fridays Off) 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jefferey Harold can be reached on 571-272-7519. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Alexander Q Huerta
Examiner
Art Unit 4115

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/Jefferey F Harold/
Supervisory Patent Examiner, Art Unit 4115